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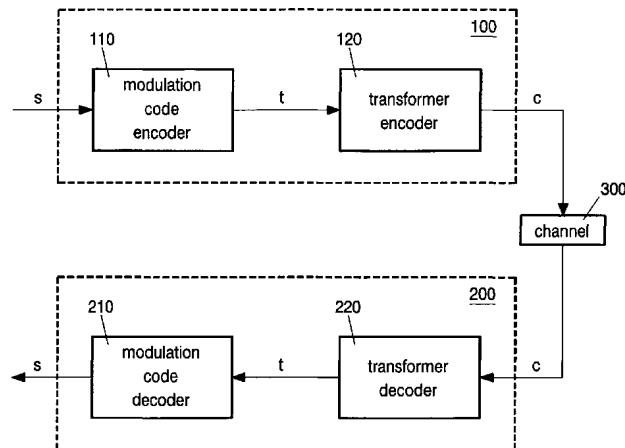
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(54) Title: MODULATION CODE SYSTEM AND METHODS OF ENCODING AND DECODING A SIGNAL



(57) Abstract: The invention relates to a modulation code system and methods of encoding and decoding a signal to be used for data transmission or data storage. Such systems comprise an encoder (100) for transforming an original signal *s* into an encoded signal *c* satisfying predefined second constraints before said signal being transmitted via a channel (300). Such modulation code systems further comprise a decoder (200) for decoding the encoded signal *c*, after restoration, back into the original signal *s*. It is the object of the invention to improve such known systems and methods in such a way that they require less hardware. This object is achieved according to the invention in that the encoder (100) comprises a modulation encoder (110) transforming the original signal *s* into an intermediate signal *t* satisfying predefined first constraints and a transformer encoder (120) for transforming the intermediate signal *t* into the encoded signal *c*. The object is further achieved in such a way that the decoder (200) comprises a transformer decoder (220) for re-transforming the encoded signal *c* into said intermediate signal *t* and a modulation code decoder (210) for decoding that intermediate signal *t* into said original signal *s*.

WO 2005/098851 A1



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